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The Mills spectrograph observations, as published below, do not indicate variable velocity.

	Date.	Velocity.
1897	November 16	+ 15 \pm km
1899	December 18	+ 16
	December 24	+ 15
	December 27	+ 14
1900	January 30	+ 14
1901	January 27	+ 14

VI.—THE VARIABLE VELOCITY OF δ ORIONIS IN THE LINE OF SIGHT.

The variable velocity of this star was discovered by M. H. DESLANDRES from observations made with the great Meudon refractor. This star is not on the programme for the Mills spectrograph, as its lines are very broad and unsuitable for accurate measurement. However, Mr. WRIGHT has secured three observations, as below, which confirm M. DESLANDRES' discovery.

	Date.	Velocity.
1900	August 12	+ 3 km
	August 21	+ 51
	September 17	- 69

OBSERVATIONS OF THE SATELLITES OF *URANUS* IN 1900
AND 1901.

The present great south declination of *Uranus* makes observations of its faint satellites difficult in northern observatories even under the best conditions, and worthless when the conditions are poor. On this account a comparatively small number of measures, especially of the two inner satellites, *Ariel* and *Umbriel*, was secured during the last two oppositions of the planet. For of the nights when the 36-inch telescope was available to me, I used for this work only those on which the satellite measured could be seen continuously during the time of observation, and on which the image of *Uranus* was sufficiently steady and well-defined to permit accurate bisections to be made with the micrometer-wire.

The detailed observations with notes on the relative brightness of the satellites and a comparison of the observed positions with those derived from NEWCOMB's Tables (Washington Observations for 1873—Appendix I) are published as *Bulletin* No. 7 of the Lick Observatory.

Umbriel was usually the most difficult of the satellites to see, and *Titania* the easiest. But on several nights *Ariel* could not be seen steadily, though *Umbriel* was measured satisfactorily.

The residuals derived from the comparison with NEWCOMB'S tables indicate that the satellites are slightly in advance of their predicted places, and that their orbits are a little smaller than those given by NEWCOMB.

The average residuals are:—

<i>Ariel</i>	+	2°.2	—	o''.29
<i>Umbriel</i>	+	1 .2	—	o .16
<i>Titania</i>	+	1 .45	—	o .18
<i>Oberon</i>	+	o .7	—	o .13

On the assumption that these quantities represent the error of the tables, I computed the probable error of a single observation of each satellite with the following result:—

<i>Ariel</i>	±	1°.2	±	o''.16
<i>Umbriel</i>	±	1 .1	±	o .18
<i>Titania</i>	±	o .6	±	o .20
<i>Oberon</i>	±	o .3	±	o .18

NEWCOMB'S tables are based upon observations made with the 26-inch refractor of the U. S. Naval Observatory in 1874 and 1875. That they represent observations made a quarter of a century later as closely as is indicated by the residuals here given is sufficient commentary upon the skill and care with which they were constructed, and upon the accuracy of the observations on which they were based.

R. G. AITKEN.

OBSERVATIONS OF THE SPECTROSCOPIC BINARY *CAPELLA*.*

The first-magnitude star *Capella* was discovered to be a spectroscopic double star, early in August, 1899, from an examination of the plates of its spectrum secured with the Mills spectograph in 1896. Announcement of the fact was made to the Astronomical and Astrophysical Society of America at the meeting of September 7, 1899, and in the *Astrophysical Journal* for October, 1899.

Independent discovery of its binary character was made by Mr. H. F. NEWALL, of Cambridge, England, in November, 1899, and announced in the *Monthly Notices Royal Astronomical Society* for November.

* From Lick Observatory Bulletin, No. 6.